

Please enter new claim 40 as follows:

**F6**  
-- 40. A nucleic acid or complement thereof which hybridizes to the 1.3 kB RNA depicted in Figure 1 or its complement.

**REMARKS**

Applicants have amended claims 19, 21, 24 - 36, and 39 to more particularly point out and distinctly claim the subject matter Applicants regard as their invention. Support for the amended and added claim may be found throughout the specification, for example at page 2, lines 4-8, page 3, lines 19-30, page 4, lines 20-25, and in figure 1. Support for claim 40 may be found throughout the specification, for example at page 3, lines 27-30.

I. 35 U.S.C. §112, First Paragraph

The Office has rejected claims 21 and 24 under 35 U.S.C. §112, first paragraph, for failing to support the term "A DNA construct." (Office Action, page 2, paragraph 4.) Applicants have amended "construct" to "molecule" in claims 21 and 24. The term "DNA molecule" has a clear meaning to those of skill in the art. Applicants submit that the specification contains a description of the claimed DNA molecules that satisfies the written description requirement of 35 U.S.C. §112, first paragraph. Therefore, Applicants request that this rejection be withdrawn.

LAW OFFICES

FINNEGAN, HENDERSON,  
FARABOW, GARRETT,  
& DUNNER, L.L.P.  
1300 I STREET, N. W.  
WASHINGTON, DC 20005  
202-408-4000

II. 35 U.S.C. §112, Second Paragraph

The Office has rejected claims 19-39 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. (Office Action at page 3.) With regards to claim 19, the Office believes that the phrase "said DNA molecule does not comprise a HindIII R fragment" causes the metes and bounds of the claim to be not entirely clear, "because it is not clear what the intended DNA does comprise and what the claim encompasses." Applicants have amended the claim to make it clear that they do not intend to claim an entire HindIII R fragment, but rather intend to claim a DNA molecule that is a fragment of an entire HindIII R fragment.) Therefore, Applicants request that this rejection be withdrawn.

Similarly, with regards to claims 25-37, the Office found the phrase, "contained within" to be indefinite. (Office Action, page 3, paragraph 4.) The Office did not know whether this language "intended to claim all portions of the HCMV genome that are smaller than the HindIII R fragment, as long as the sequences that encode pp28 or antigenic portions of pp28 are present." Applicants have amended claim 25 to make it clear that they do not intend to claim an entire HindIII R fragment. Therefore, Applicants request that this rejection be withdrawn for independent claim 25, and dependent claims 26-36. Applicants respectfully point out that claim 37 does not contain the disputed phrase, and respectfully request that this rejection be withdrawn.

Additionally, with regards to claim 25, the Office viewed as indefinite the recitation of a DNA "molecule" contained within a particular restriction fragment, as recited in the phrase, "wherein said DNA molecule is contained within the HindIII fragment that includes

pp28." (Office Action, page 3, paragraph 5.) Furthermore, the Office stated that it is not clear how a DNA molecule is different than a restriction fragment. Applicants have amended claims 25-36 to more distinctly claim the object they regard as their invention.

The Office also found the recitation of a genome fragment that includes a protein to be indefinite. (Office Action, page 3, paragraph 5 - page 4, paragraph 2.) Applicants have amended "includes" to "includes said DNA sequence which encodes." Therefore, Applicants request that this rejection be withdrawn.

The Office also rejected claims 20, 21, 23, 24, and 39 under 35 U.S.C. §112, second paragraph, but did not explain which portions of these claims are allegedly indefinite. (Office Action, page 3, paragraph 2.) Applicants respectfully request that those rejections be clarified or withdrawn.

III. 35 U.S.C. §102(b)

The Office has rejected claims 19 and 25-39 under 35 U.S.C. §102(b) as anticipated by *Ihara*. (Office Action, page 4, paragraph 4.) The Office argues that *Ihara* discloses a HindIII R fragment which was recleaved with other restriction nucleases, including XbaI, to generate a DNA fragment or molecule which is deemed to contain the relevant DNA, and that the HindIII/XbaI fragment anticipates the subject matter of claims 19 and 27-39, since the XbaI fragment is contained within the HindIII R fragment and contains all the other restriction fragments. Applicants respectfully disagree.

The HindIII restriction fragments described in *Ihara* Table 1 (*Ihara* at 244), do not disclose Applicants' HindIII R fragment, nor do they disclose a HindIII/XbaI fragment which is contained with the HindIII R fragment. The HindIII R fragment disclosed in *Ihara* Table 1 (*Ihara* at 244) does not contain an XbaI cleavage site, nor does *Ihara* fragment S. *Ihara* also discloses that its 6.3 kB HindIII fragment Q contained *one* XbaI cleavage site, which upon cleavage generated HindIII/XbaI fragments of 3.7 and 2.6 kBs. In contrast, Applicant's HindIII R fragment contains *two* XbaI cleavage sites, which would generate HindIII/XbaI fragments of size .7, 2, and 3.8 kBs (see Figure 1). In fact, none of the HindIII/XbaI fragments disclosed in *Ihara* Table 1 (*Ihara* at 244) match the HindIII/XbaI cleavage pattern disclosed by Applicants. Therefore *Ihara* does not disclose a XbaI fragment which is contained within the HindIII R fragment, nor does it inherently contain all the other restriction fragments.

In order for a single prior art reference to anticipate a claim under 35 U.S.C. 102(b), all elements of the claim must be disclosed in that reference, and *Ihara* does not disclose each element of the claims. Specifically, claim 19 defines a DNA molecule that does *not comprise an entire HindIII R fragment* from the genome of human cytomegalovirus. *Ihara* does not disclose any DNA fragments that do not comprise a HindIII R fragment of HCMV and that encode pp28 or antigenic portions thereof. Therefore, *Ihara* does not disclose every element of independent claims 19, 25, 39 or of dependent claims 26-38. Applicants therefore respectfully request that this rejection be withdrawn.

LAW OFFICES

FINNEGAN, HENDERSON,  
FARABOW, GARRETT,  
& DUNNER, L.L.P.  
1300 I STREET, N. W.  
WASHINGTON, DC 20005  
202-408-4000

IV 35 U.S.C. §103(a)

The Office has rejected claims 20-24 under 35 U.S.C. §103(a) over *Ihara*. The Office argues that it would have been obvious to clone an HCMV of interest because *Ihara* teaches the interest in and value of cloning HCMV DNA, i.e., for the purpose of constructing cleavage maps of the HCMV genome. (Office Action, page 5, paragraph 4.) Applicants respectfully traverse this rejection.

*Ihara* does not teach or suggest a DNA molecule encoding HCMV pp28 as claimed in claims 20-24. Furthermore, a DNA molecule encoding HCMV pp28 could not be arrived at through obvious variation of the teachings of *Ihara*. Nothing in *Ihara* suggests or provides motivation to modify *Ihara* to make a DNA molecule encoding HCMV pp28 as claimed in claims 20-24. The Applicants localized the gene that encoded HCMV pp28 to a particular portion of a HindIII fragment. While *Ihara* taught HindIII cleavage maps of HCMV, and even realized that its gene libraries could be useful in determining the positions of functional genes of HCMV, (*Ihara* at 249), it never identified DNA encoding pp28 or antigenic portions thereof. *Ihara* discloses over a hundred fragments but provides no motivation to select any particular fragment for having the potential to encode pp28 or antigenic portions thereof. Furthermore, *Ihara* did not compare HCMV to other known viruses. Therefore, *Ihara* does not teach or suggest claims 20-24, which all involve coding sequences. Finally, the Office has not shown that *Ihara* provides a reasonable expectation of success in arriving at the claimed invention.

Therefore, Applicants respectfully request that this rejection be withdrawn.

LAW OFFICES

FINNEGAN, HENDERSON,  
FARABOW, GARRETT,  
& DUNNER, L.L.P.  
1300 I STREET, N. W.  
WASHINGTON, DC 20005  
202-408-4000

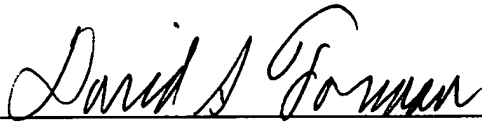
Application No: 08/460,715  
Attorney Docket No: 05552.0738-02

Applicants hereby request that this request for withdrawal of finality, and that the Amendment be entered and considered by the Examiner.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

By: 

David S. Forman  
Reg. No. 33,694



Scott J. Popma  
Reg. No 46,053

Dated: January 11, 2001

LAW OFFICES

FINNEGAN, HENDERSON,  
FARABOW, GARRETT,  
& DUNNER, L.L.P.  
1300 I STREET, N. W.  
WASHINGTON, DC 20005  
202-408-4000